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| APPLICATION NO.                   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------------|-------------|----------------------|---------------------|------------------|
| 09/964,648                        | 09/28/2001  | Keiji Yoshimura      | 862.C2397           | 1952             |
| 5514                              | 7590        | 07/27/2006           | EXAMINER            |                  |
| FITZPATRICK CELLA HARPER & SCINTO |             |                      | CABRERA, ZOILA E    |                  |
| 30 ROCKEFELLER PLAZA              |             |                      | ART UNIT            |                  |
| NEW YORK, NY 10112                |             |                      | PAPER NUMBER        |                  |

2125

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/964,648

Applicant(s)

YOSHIMURA, KEIJI

Examiner

Zoila E. Cabrera

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 37-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 37-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Final Rejection***

1. Claims 37-44 are presented for consideration.

New claim 45 is added.

The rejection with respect to claims Claims 37-44 is maintained.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 42 and therefore claims 43-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 42 recites "correction data, required for exposure of a substrate and obtained with respect to a previous exposure of a substrate can be diverted". Please note that the recitation "can be" renders the claim indefinite. Applicant is suggested to positively recite the structure either it is diverted or it is not diverted.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 37-40, and 42-45 are rejected under 35 U.S.C. 102(e) as being anticipated by **Nishi (US 6,462,807)**.

Regarding claim 37-40, and 42-44, **Nishi** discloses:

37. An exposure apparatus for performing exposure of a substrate to light via a pattern of a reticle (Col. 1, lines 34-40; Col. 1, lines 28-31; Col. 5, lines 34-36), said apparatus comprising: a reticle stage configured to hold the reticle and to move (Col. 2, lines 59-62); a substrate stage configured to hold the substrate and to move (Fig. 3, element 48); an interface configured to input information of a condition of the exposure (Col. 5, lines 36-39), and a controller configured **to select** an exposure method to be performed **from** a first exposure in which the exposure is performed while speeds of said reticle stage and said substrate stage are constant, and a second exposure method in which the exposure is performed while speed of said reticle stage and said substrate state are changing (Col. 5, lines 33-40, i.e., an exposure method having the shorter time is selected; Col. 20, lines 29-31, i.e., exposure time depends on scan velocity of the reticle; Col. 5, lines 49-60; Col. 6, lines 25-30; Col. 12, lines 4-23; Col. 3, lines 55-64, i.e. scan velocity higher and synchronization is required of the reticle wafer and stage);

38. (New) An apparatus according to claim 37, wherein the condition of the exposure includes at least one of a shot size, a shot layout of the exposure to be performed, an alignment measurement value, a shot layout of the exposure having been performed, a

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shot position, and an accuracy required with respect to moving said reticle stage and said substrate stage (Col. 16, lines 22-26, i.e., a layout of shot regions on the wafer or a shot layout is inputted by an operator as conditions);

39. (New) An apparatus according to claim 38, wherein the condition of the exposure includes a synchronization accuracy with respect to moving said reticle stage and said substrate stage (Col. 3, lines 56-60; Col. 17, lines 46-49).

40. (New) A method of manufacturing a device, said method comprising steps of: performing exposure of a substrate to light via a pattern of a reticle using an exposure apparatus as defined in claim 37; developing the exposed substrate, and processing the developed substrate to manufacture the device (Fig. 3; Col. 5, lines 36-40);

42. (New) An exposure apparatus for performing exposure of a substrate to light via a pattern of a reticle (Col. 1, lines 34-40), said apparatus comprising: an interface configured to input information of a condition of the exposure; and a controller configured to select, among a plurality of exposure methods, an exposure method to be used to which correction data, required for exposure of a substrate and , obtained with respect to a previous exposure of a substrate, can be diverted, based on the input information (Col. 5, lines 36-40, i.e., evaluation unit corresponds to calculation of exposure time on the basis of a layout of the shot regions, required quantity of

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integrated exposure, etc. The determining unit ,Fig. 13, element 79, selects an exposure method having the shorter exposure time; Col. 18, lines 35-62).

43. (New) An apparatus according to claim 42, wherein the plurality of exposure methods includes at least one of a static exposure with the substrate standing still while the exposure is performed, a constant speed exposure with the substrate moving at a constant speed while the exposure is performed and a changing speed exposure with the substrate moving at a changing speed while the exposure is performed (Col. 18, lines 52-54).

44. (New) A method of manufacturing a device, said method comprising steps of: performing exposure of a substrate to light via a pattern of a reticle using an exposure apparatus as defined in claim 42; developing the exposed substrate; and processing the developed substrate to manufacture the device. (Fig. 3; Col. 5, lines 36-40).

45. the correction data is used for correcting a measurement value of a surface position of the substrate (Col. 18, lines 35-62).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Nishi (US 6,462,807)**.

Regarding claims 41, Nishi discloses the limitations of claim 37 but fails to disclose that said controller is configured to perform the determination based on a user's indication if a manual specification mode is specified as a determination mode of said controller.

However, Nishi discloses that the operator supplies information or conditions such as a kind of the reticle to be exposed next, the photosensitivity of a photoresist on the wafer, a layout of shot regions on the wafer, etc. and thereafter an exposure mode to be used is determined (Col. 16, lines 22-30). Therefore it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to specify a manual mode as one of the conditions and thereafter the exposure mode would be determined based on such condition because it would provide a user friendly system that would allow the operator to choose the corresponding exposure mode such as manual mode.

### ***Response to Arguments***

5. Applicant's arguments filed 5/1/06 have been fully considered but they are not persuasive. Applicant contends that Nishi does not disclose or suggest a controller configured to select an exposure method to be performed from a first exposure, in which the exposure is performed while speeds of the reticle stage on a substrate stage are constant, and a second exposure method in which the exposure is performed while speeds of the reticle stage and the substrate stage are changing, based on input

information. Applicant further contends that Nishi fails to disclose a controller configured to select, among a plurality of exposure methods, an exposure method to be used to which correction data required for exposure of a substrate and obtained with respect to a previous exposure of a substrate can be diverted, based on the input information. Examiner disagrees as previously described in paragraph 2 above.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

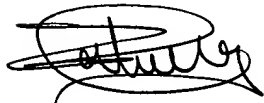
Any inquiry concerning communication or earlier communication from the examiner should be directed to Zoila Cabrera, whose telephone number is (571) 272-



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3738. The examiner can normally be reached on M-F from 8:00 a.m. to 5:30 p.m. EST (every other Friday).

If attempts to reach the examiner by phone fail, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. Additionally, the fax phones for Art Unit 2125 are (571) 273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 305-9600.

A handwritten signature in black ink, appearing to read 'Zoila Cabrera', enclosed within a hand-drawn oval.

Zoila Cabrera  
Primary Examiner  
7/24/06